Jason Aloi

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# Address

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# Profile

PROFESSIONAL SUMMARY

Senior AI Engineer with 25+ years of software development experience & deep expertise in cutting-edge AI technologies. Specialized in building production-ready AI systems, multi-agent orchestrations, & enterprise-scale machine learning solutions. Proven track record of leading development teams & delivering complex AI products that drive business transformation.

Key Differentiators:

* 780+ hours of certified AI/ML training with 276 professional certifications
* Expert in Agentic AI frameworks including LangChain, RAG systems, and Model Context Protocol (MCP)
* 13+ years leading development teams and managing enterprise-scale AI implementations
* Full-stack AI development from model training to cloud deployment and production monitoring

CORE COMPETENCIES

AI/ML Engineering: Generative AI | Large Language Models (LLMs) | Retrieval-Augmented Generation (RAG) | Multi-Agent Orchestration | LangChain | Vector Embeddings | Machine Learning | Deep Learning | Stable Diffusion | Hugging Face | PyTorch | TensorFlow

Programming & Frameworks: Python | JavaScript/TypeScript | Node.js | FastAPI | Django | Flask | Express.js | React | GraphQL | REST APIs | Microservices Architecture

Cloud & DevOps: AWS | Google Cloud Platform | Docker | Kubernetes | CI/CD Pipelines | Infrastructure as Code | GitOps | Cloud-Native AI Deployment

Data Engineering: SQL | PostgreSQL | MongoDB | Vector Databases | Data Analysis | ETL/ELT Pipelines | Real-time Data Processing

# Work Experience

## Freelance

### INDEPENDENT PROJECTS, CONTRACTS (DEV, DESIGN, PM)

01/1998 – present

Design and develop custom AI-powered applications, automation systems, and full-stack solutions for diverse clients. Recent focus on generative AI, LLM orchestration, and intelligent agent systems.

Recent AI Projects:

* Built multi-agent orchestration systems using LangChain and RAG architectures
* Developed custom GPT applications and prompt engineering solutions
* Implemented vector embeddings and semantic search capabilities
* Created ML pipelines with PyTorch and Hugging Face transformers

Enterprise Solutions Delivered: E-commerce platforms, CRM systems, learning management systems, workflow automation, project management tools, payment processing, real estate listing systems, POS systems, home automation

Technologies: Python, ChatGPT API, LangChain, FastAPI, React, AWS, Docker, PostgreSQL, MongoDB, various AI/ML frameworks

## Bendyworks ▪ Madison ▪ United States

### Senior Software Engineer

10/2021 – 08/2022

Full-stack engineer at an agile consulting firm delivering enterprise web and mobile applications using Ruby on Rails, Elixir/Phoenix, Node.js, Python, and modern front-end frameworks.

Technical Environment:

* Back-End: Ruby on Rails, Elixir/Phoenix, Node.js, Python (Django, Flask), RESTful APIs, GraphQL
* Front-End: React, Angular, TypeScript, HTML5/CSS3, Tailwind CSS
* Databases: PostgreSQL, MongoDB, MySQL
* DevOps: Docker, Git/GitHub, CI/CD, AWS, TDD/BDD

Key Accomplishments:

* Architected 3+ full-stack applications using Rails and React, reducing client operational costs by 30% through automation and workflow improvements
* Implemented real-time features with Phoenix Channels/LiveView, improving user engagement by 40% and reducing page load times by 50%
* Developed RESTful and GraphQL APIs serving 10,000+ daily requests with 99.9% uptime
* Refactored legacy Rails codebases, increasing test coverage from 45% to 85% and decreasing bug reports by 35%
* Established TDD/BDD practices reducing production defects by 25%
* Optimized database queries and caching strategies, improving response times from 800ms to 200ms
* Mentored junior developers through pair programming, improving code quality scores by 20%

## The Murray Group ▪ New York City ▪ United States

### Lead Developer

01/2013 – 06/2021

Led full-stack development and DevOps for enterprise applications serving multiple business units. Architected and delivered scalable solutions across e-commerce, CRM, learning management, and workflow automation systems.

* Managed end-to-end development lifecycle from requirements gathering through deployment and maintenance
* Implemented CI/CD pipelines and cloud infrastructure on AWS (EC2, S3, Beanstalk)
* Designed and built microservices architecture with Docker containerization
* Led team training initiatives and established development best practices
* Created data models, APIs, and integrations for complex business workflows

Technologies: React, Redux, GraphQL, Node.js, Docker, AWS, PostgreSQL, Git, Agile methodologies

## Casebook PBC ▪ New York City ▪ United States

### Senior Web Application Developer

01/2010 – 01/2012

Developed and maintained Ruby on Rails applications with focus on scalable architecture and test-driven development. Built progressive web applications with modern JavaScript frameworks.

* Implemented comprehensive test suites using RSpec, Cucumber, and TDD practices
* Optimized database performance with MongoDB sharding and partitioning strategies
* Established CI/CD workflows and automated deployment processes with Heroku
* Contributed to technical architecture decisions and code quality standards

Technologies: Ruby on Rails, JavaScript, MongoDB, Heroku, Chef, RSpec, Bootstrap

# Education

## SUNY Empire State College ▪ Rochester ▪ United States

### Management Information Systems

01/2005 – 01/2007

GPA: 3.8

## SUNY Brockport ▪ Brockport ▪ United States

01/2003 – 01/2005

# Certificates & Training

## AI Automation & Agents with Model Context Protocol (13.5h) - Python, LangChain, RAG ▪ Udemy

### https://www.udemy.com/certificate/UC-8eb85dc6-4621-45dd-9146-e1d123b5dedd/

08/2025

ClaudeCode, Cursor, Flowise, HITL, LangChain, MCP, AIOrchestration, RAG, Embeddings, VectorDBs, WorkflowAutomation, n8n

## Programming Generative AI with PyTorch & Hugging Face (18h) - Advanced model training ▪ LinkedIn

### https://www.linkedin.com/learning/certificates/3c86455fd3c59e600dad83fb031e0497940aa8eb1eafc4cf9056e2325208ddca

07/2025

GenAI, HuggingFace, LLM, Programming, StableDiffusion

## AWS Certified Machine Learning Engineer Associate (MLA-C01) Cert Prep ▪ LinkedIn

### https://devaloi.github.io/pdf/AWS%20Certified%20Machine%20Learning%20Engineer%20Associate.pdf

07/2025

Amazon Web Services & Machine Learning

## Python for Data Science and Machine Learning Essential Training Part 1 ▪ LinkedIn

### https://devaloi.github.io/pdf/Python%20for%20Data%20Science%20and%20Machine%20Learning%20Essential%20Training%201.pdf

07/2025

Python, Machine Learning, & Data Science

## GitHub Actions Workshop: Create CI/CD Pipelines to Automate, Build, Test and Deploy your Application by Microsoft Press ▪ LinkedIn

### https://devaloi.github.io/pdf/GitHub%20Actions%20Workshop.pdf

07/2025

GitHub & Continuous Integration and Continuous Delivery (CI/CD)

# Achievements

276 professional certifications totaling 780+ hours in AI/ML, cloud platforms, and full-stack development. React (111h+) | JavaScript/TypeScript (170h+) | Python (76h+) | Node.js (69h+) | SQL (69h+) | AWS (48h+) | Kubernetes (41h+) | Data Analysis (33h+) | Docker (29h+)

# Volunteering

## Downs2Earth ▪ Green Bay ▪ United States

### Executive Director

06/2016 – 12/2021

I built and led a mission-driven organization at the intersection of environmental advocacy and disability inclusion. I established and managed a team of 25 members across seven countries and multiple time zones, developing remote management systems and cross-cultural communication strategies that enabled global collaboration and community impact.